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(54) Process of etching silicon nitride layer by using etching gas containing sulfur hexafluoride, hydrogen bromide and oxygen

(57) A silicon nitride layer (13) on a silicon oxide layer (12) is selectively etched by using etching gas containing sulfur hexafluoride, hydrogen bromide and oxygen, and the hydrogen bromide is large enough in

vapor pressure to maintain the composition of the etching gas without a heater.

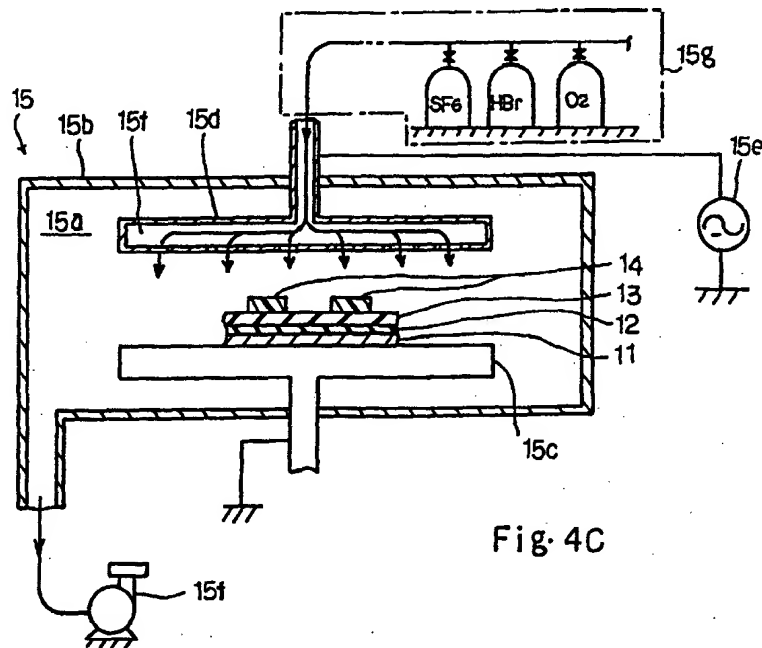


Fig. 4C

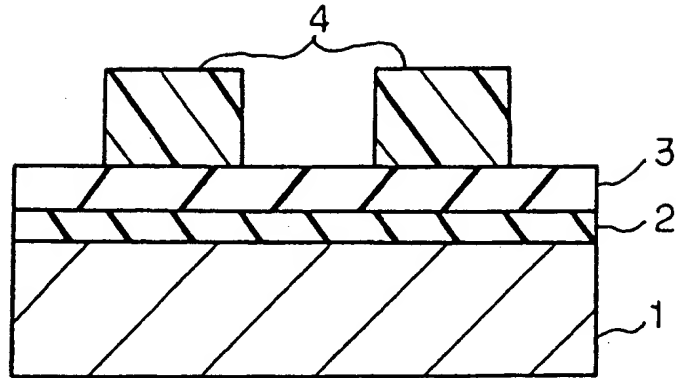


Fig. 1A
PRIOR ART

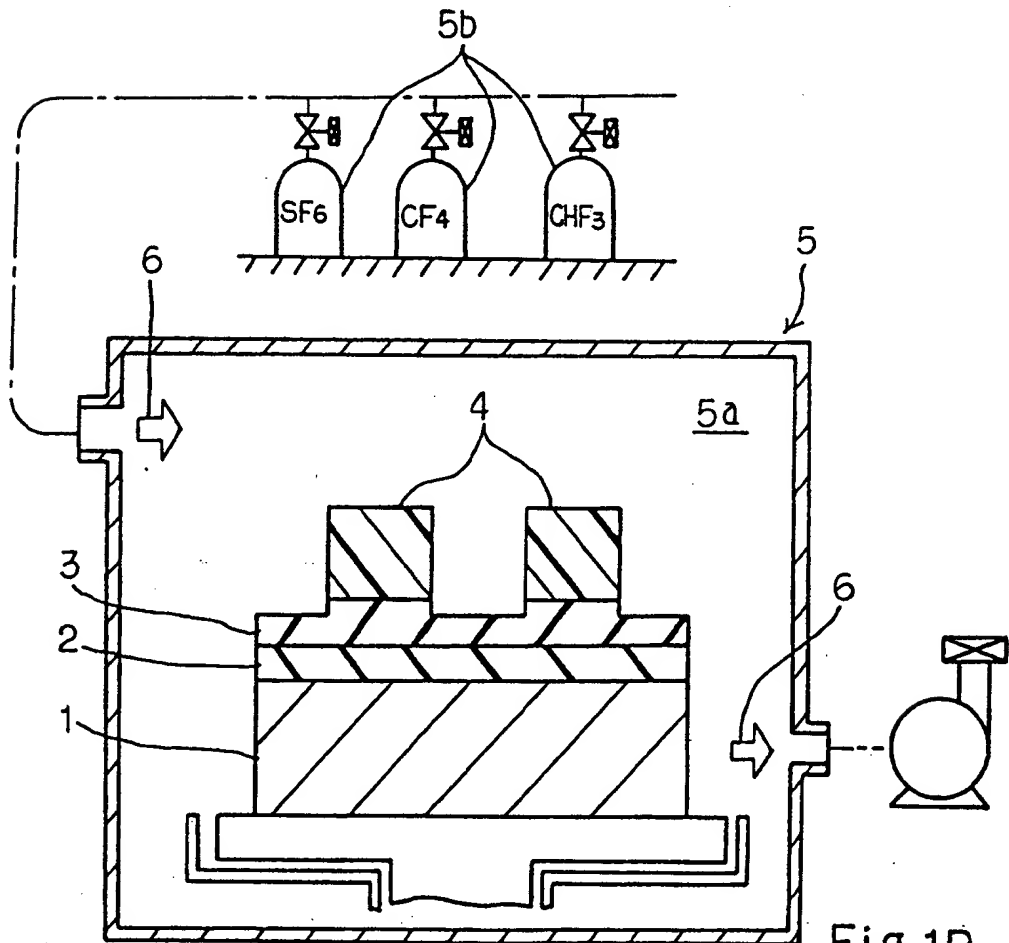


Fig. 1B
PRIOR ART

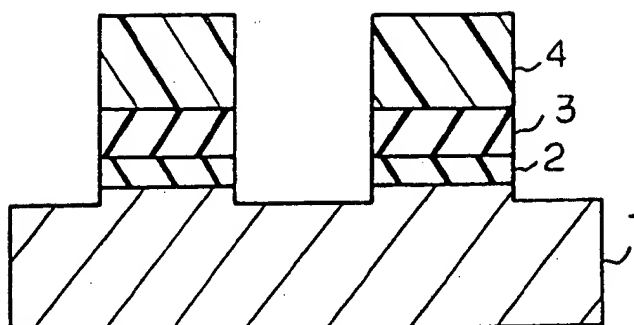


Fig. 1C
PRIOR ART

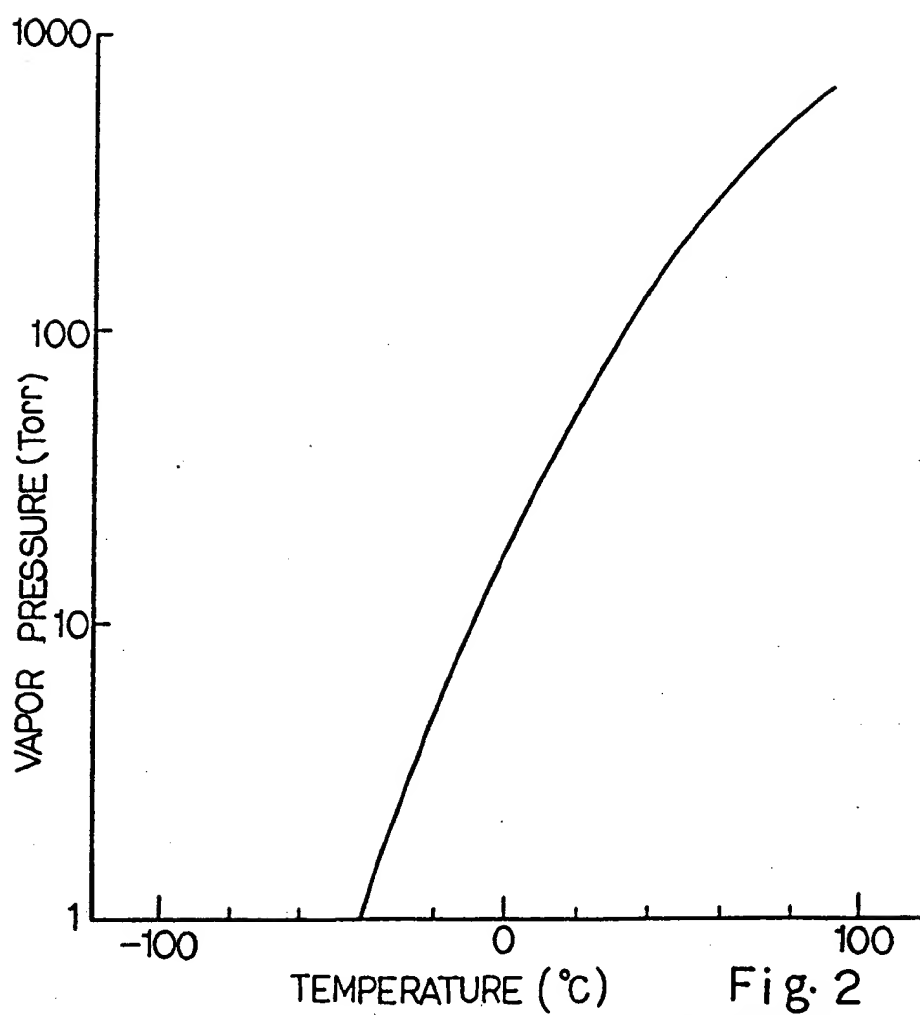


Fig. 2
PRIOR ART

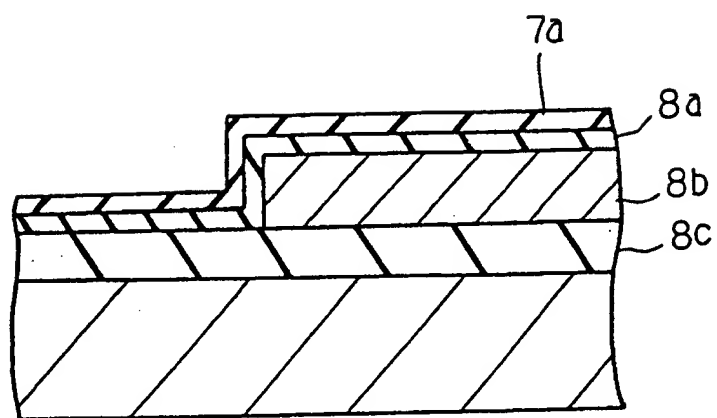


Fig. 3A
PRIOR ART

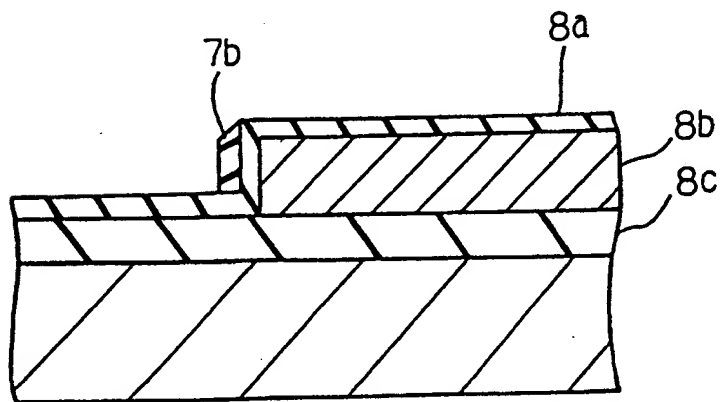


Fig. 3B
PRIOR ART

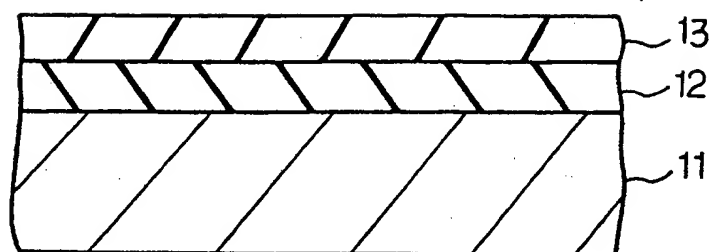


Fig. 4A

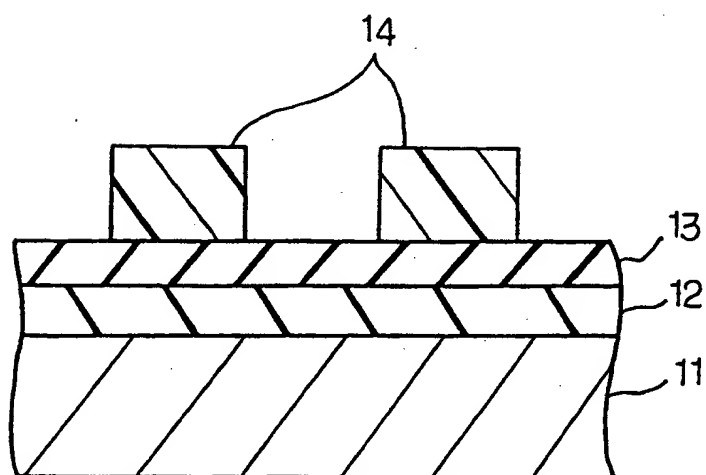


Fig. 4B

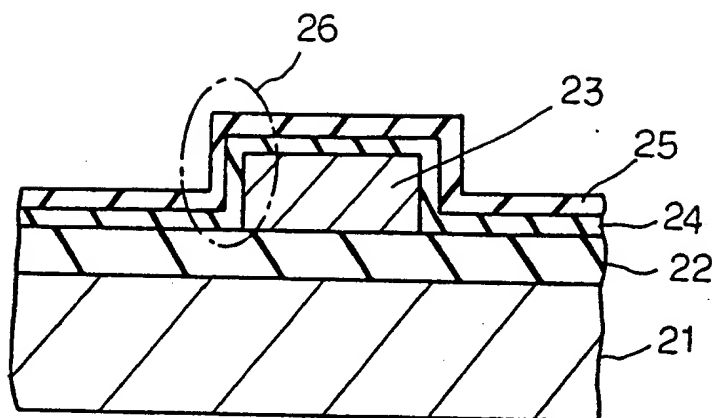


Fig 6A

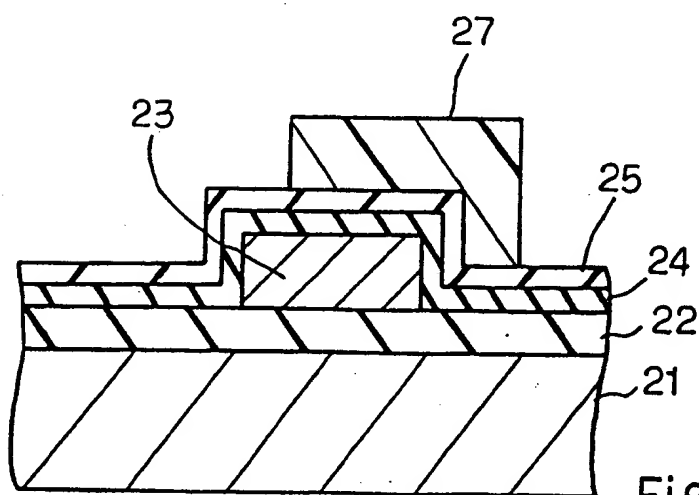


Fig 6B

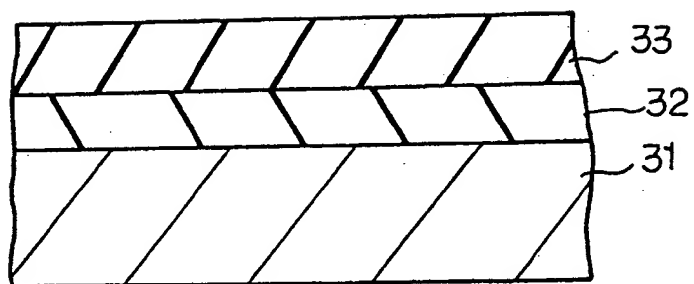


Fig. 7A

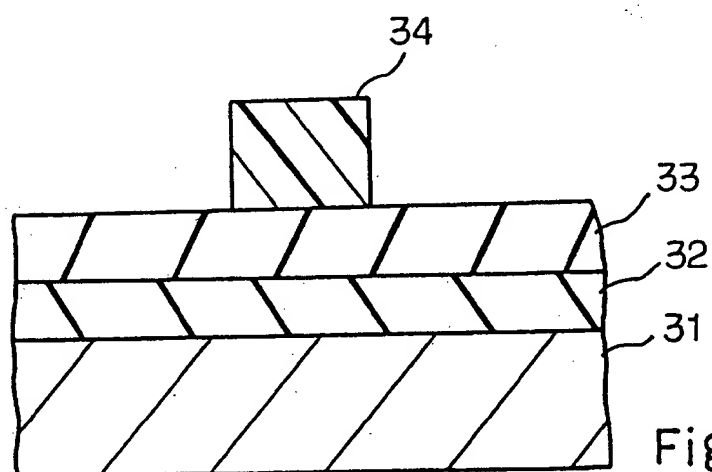


Fig. 7B

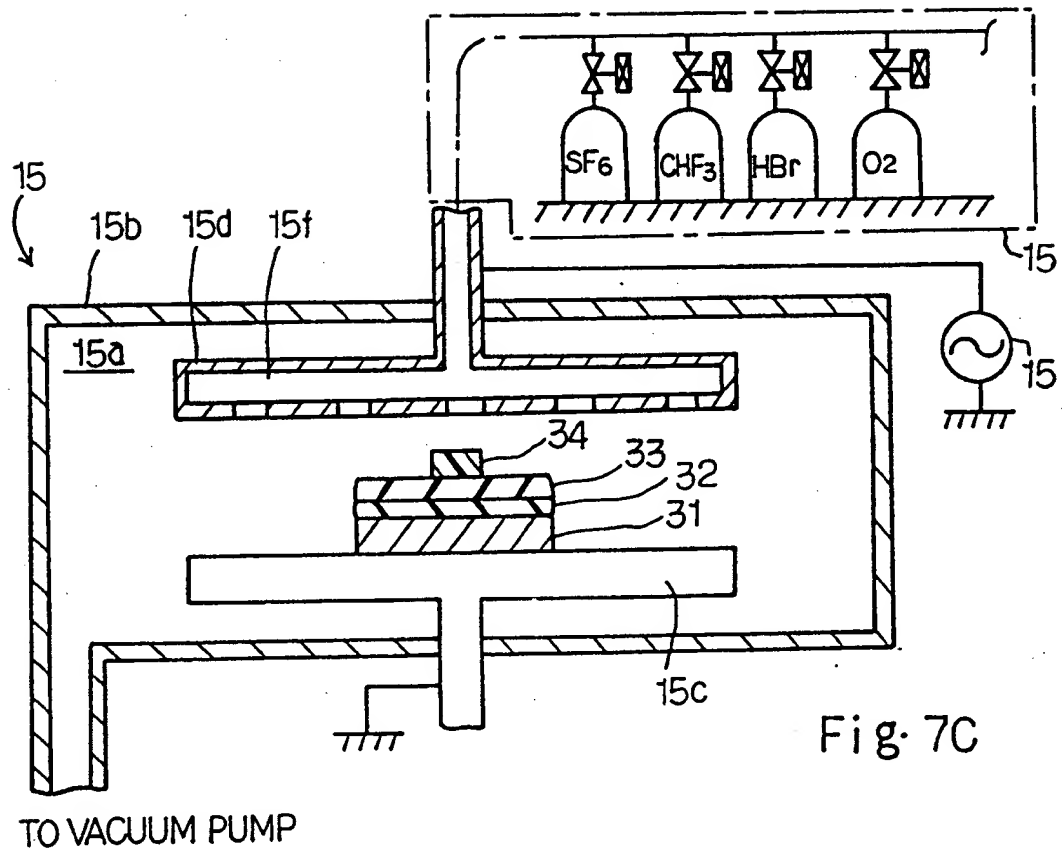


Fig. 7C

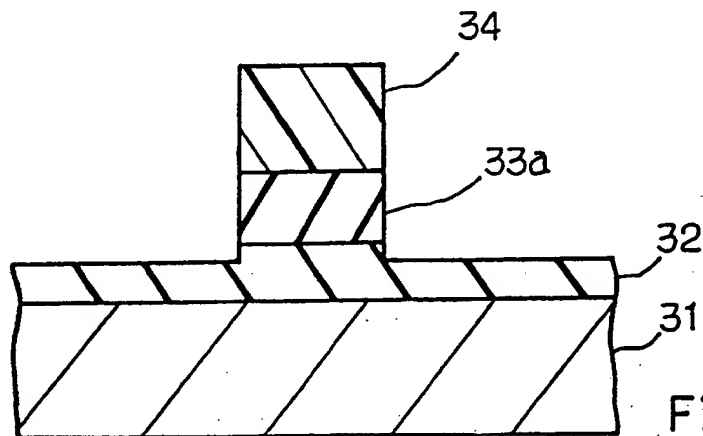


Fig. 7D